

In the Claims

Please replace all prior versions of claims in the application with the following claims.

1. (Currently amended) Therapeutic aerosol device with
 - a) a nebuliser device-(1)
 - aa. an aerosol generator-(2) to which a gaseous medium, in particular air and preferably compressed air for the generation of a main aerosol flow may be supplied from a supply device, preferably a compressed air supply device, and
 - bb. Aa pressure connection device-(25) to supply pressure fluctuations which are superimposed on the aerosol main flow,
 - b) a nosepiece-(10) to supply the aerosol into one of the two alae of the nose of a user connected to the nebuliser device-(1), and
 - c) a flow resistance device-(11) at the other of the two alae of the user's nose.

2. (Currently amended) Therapeutic aerosol device according to claim 1, ~~characterised in that~~ wherein the supply device is a compressed air supply device and the aerosol generator is a nebuliser nozzle-(2) with a compressed air channel-(5) opening into a nozzle opening-(6), and with at least one suction channel-(7) through which a liquid to be nebulised is drawn in.

3. (Currently amended) Therapeutic aerosol device according to ~~either claim 1 or 2,~~ ~~characterised in that~~ claim 1, wherein the nosepiece-(10) is embodied at one end-(10a) for attachment to a connecting piece-(8) in the nebuliser device-(1) and at the other end-(10b) for introduction into one nostril and the tight sealing of one of a user's nostrils.

4. (Currently amended) Therapeutic aerosol device according to claim 3, ~~characterised in that~~ wherein the end-(10b) of the nosepiece-(10) embodied for introduction into one nostril is embodied in the form of a truncated cone, preferably with an aperture angle α in a range of from 10° to 40°.

5. (Currently amended) Therapeutic aerosol device according to claim 4, ~~characterised in that~~ wherein the truncated cone shaped end ~~(10b)~~ of the nosepiece ~~(10)~~ has a longitudinal axis, which is inclined relative to the longitudinal axis of the connecting piece ~~(8)~~ of the nebuliser device ~~(1)~~.

6. (Currently amended) Therapeutic aerosol device according to claim 5, ~~characterised in that~~ wherein the angle between the longitudinal axes of the truncated cone shaped end ~~(10b)~~ and of the connecting piece ~~(8)~~ is in the range of from 30° to 75°.

7. (Currently amended) Therapeutic aerosol device according to ~~any one of claims 3 to 6,~~ characterised in that claim 3, wherein the end embodied for introduction into one nostril ~~(10b)~~ of the nosepiece ~~(10)~~ is embodied with a balloon device ~~(32)~~ that may be inflated by the supply of compressed air in order to ensure a reliable and tight fit of the nosepiece in one of a patient's nostrils.

8. (Currently amended) Therapeutic aerosol device according to ~~any one of claims 1 to 7,~~ characterised in that claim 1, wherein the flow resistance device ~~(11)~~ is embodied for introduction into the other of the use's nostrils.

9. (Currently amended) Therapeutic aerosol device according to ~~any one of the preceding claims,~~ characterised in that claim 1, wherein the flow resistance device ~~(11)~~ comprises an opening ~~(11a)~~ smaller than the user's nostril.

10. (Currently amended) Therapeutic aerosol device according to ~~any one of the preceding claims,~~ characterised in that claim 1, wherein the flow resistance device ~~(11)~~ comprises a filter device ~~(12)~~.

11. (Currently amended) Therapeutic aerosol device according to ~~any one of the preceding claims,~~ characterised in that claim 1, wherein the flow resistance device ~~(11)~~ is connected to the nosepiece ~~(10)~~ by a connecting element ~~(13)~~.

12. (Currently amended) Therapeutic aerosol device according to claim 11, ~~characterised in that~~ wherein the flow resistance device-(11) is embodied in one piece with the nosepiece-(10).

13. (Currently amended) Therapeutic aerosol device according to ~~any one of the preceding claims, characterised in that~~ claim 1, wherein the flow resistance device-(11) is a stopper in particular a stopper with a hollow space.

14. (Currently amended) Therapeutic aerosol device according to claim 13, ~~characterised in that~~ wherein the stopper-(11) is embodied in the form of a truncated cone, preferably with an aperture angle α in a range of from 10° to 40°.

15. (Currently amended) Therapeutic aerosol device according to claim 13, ~~characterised in that~~ wherein the stopper is embodied in a bell shape with a first area-(A-A) with a large diameter and a second diameter-(B-B) with a small diameter.

16. (Currently amended) Therapeutic aerosol device according to ~~any one of the preceding claims, characterised in that~~ claim 1, wherein the nebuliser device-(1) comprises an air inlet flue-(9) and the pressure connection device-(25) is intended to supply pressure fluctuations at the air inlet flue-(9).

17. (Currently amended) Therapeutic aerosol device according to claim 16, ~~characterised in that~~ wherein the pressure connection device-(25) comprises a meander-shaped guide-(27) for the compressed air.

18. (Currently amended) Therapeutic aerosol device according to ~~any one of the preceding claims, characterised in that~~ claim 1, wherein compressed air is supplied through the pressure connection device-(25).

19. (Currently amended) Therapeutic aerosol device according to ~~any one of the preceding claims, characterised in that~~ claim 1, wherein the frequency of the pressure fluctuations lies within the range from 10 to 100 Hz, preferably in the range from 15 to 55 Hz.

20. (Currently amended) Therapeutic aerosol device according to ~~any one of the preceding claims, characterised in that~~ claim 1, wherein the pressure fluctuations are generated by means of a membrane compressor comprising a membrane ~~(21)~~ that seals a pressure chamber ~~(20)~~ in a pressure-tight way and is moved to and fro by a piston rod.

21. (Currently amended) Therapeutic aerosol device according to claim 20, ~~characterised in that~~ wherein the pressure chamber ~~(21)~~ comprises a connecting piece ~~(24)~~ for the connection of a hose line ~~(26)~~ which is connected to the pressure connection device ~~(25)~~ in the nebuliser device.

22. (Currently amended) Therapeutic aerosol device according to ~~any one of the preceding claims, characterised in that~~ claim 1, wherein a sensor device ~~(34, 37, 41)~~ to determine the main aerosol flow or the pressure fluctuations is provided on the flow resistance device ~~(11)~~.

23. (Currently amended) Therapeutic aerosol device according to claim 22, ~~characterised in that~~ wherein an evaluation device ~~(35)~~ and a display device ~~(36)~~ are connected to the sensor device ~~(34)~~ to indicate to the patient whether the main aerosol flow or the pressure fluctuations are sufficiently within the area of the flow resistance device ~~(11)~~.

24. (Currently amended) Therapeutic aerosol device according to ~~claims 22 or 23, characterised in that~~ claim 22, wherein the sensor device comprises a movable display element ~~(41)~~ which is arranged in a display section ~~(38)~~ of the sensor device ~~(37)~~ and is moved by the main aerosol flow or the pressure fluctuations.

25. (Currently amended) Therapeutic aerosol device according to ~~any one of claims 1 to 23~~ claim 1 for the application of one or more of the following substances:

substances with an anti-inflammatory action, for example: betamethasone, beclomethasone, budesonide, ciclesonide, dexamethasone, desoxymethasone, fluoconolone acetone, flucanone, flunisolide, fluticasone, icomethasone, rofleponide, triamcinolone acetone, fluocortin butyl, hydrocortisone aceponate, hydrocortisone buteprate buteprate, hydroxycortisone-17-butyrate, prednicarbate, 6-methylprednisolone aceponate, mometasone furoate, elastane-, prostaglandin-, leukotriene-, bradykinin- antagonists, non-steroidal anti-inflammatory drugs (NSAIDs) and/or

anti-infective agents, for example: antibiotics with or without beta-lactamase inhibitors, for example clavulanic acid, sulbactam, tazobactam, etc. from the class of

penicillins, for example: benzylpenicillins (penicillin-G-sodium, clemizone penicillin, benzathine penicillin G); phenoxypenicillins (penicillin V, propicillin); aminobenzylpenicillins (ampicillin, amoxycillin, bacampicillin), acylaminopenicillins (azlocillin, mezlocillin, piperacillin, apalcillin), carboxypenicillins (carbenicillin, ticarcillin, temocillin), isoxazolyl penicillins (oxacillin, cloxacillin, dicloxacillin, flucloxacillin), amide penicillin (mecillinam), cephalosporins, for example: cefazolin (cefazolin, cefazedone); cefuroximes (cefuroxime, cefamandole, cefotiam); cefoxitins (cefoxitin, cefotetan, latamoxef, flomoxef); cefotaximes (cefotaxime, ceftriaxone, ceftizoxime, cefmenoxime); ceftazidimes (ceftazidime, ceftazidime, cefpirome, cefepime); cefalexins (cefalexin, cefaclor, cefadroxil, cefradine, loracarbef, cefprozil); cefiximes (cefixime, cefpodoxim proxetil, cefuroxime axetil, cefetamet pivoxil, cefotiam hexetil), carbapenems and combinations, for example imipenem \pm cilastin, meropenem, biapenem monobactams (aztreonam), the above antibiotics and/or

aminoglycosides, for example: gentamicin, amikacin, isepamicin, arbekacin, tobramycin, netilmicin, spectinomycin, neomycin, paromycin, kanamycin, and/or

macrolides, for example: erythromycin, clarythromycin, roxithromycin, azithromycin, dithromycin, josamycin, spiramycin, and/or

gyrase inhibitors, for example: ciprofloxacin, gatifloxacin, norfloxacin, ofloxacin, levofloxacin, perfloxacin, lomefloxacin, fleroxacin, clinafloxacin, sitafloxacin, gemifloxacin, balofloxacin, trovafloxacin, moxifloxacin, and/or

antibiotics of other classes, for example: tetracyclines (doxycycline, minocycline), glycopeptides (vancomycin, teicoplanin, peptide 4), polymyxins (polymyxin B, colistin),

tithromycin, lincomycin, clindamycin, oxazolidinones (linzolid), chloramphenicol, fosfomycin, rifampicin, isoniazid, cycloserine, terizidone, ansamycin pentamidine, and/or sulfonamides and combinations, for example: sulfadiazine, sulfamethoxazole, sulfalene, co-trimoxazole, co-trimetrol, co-trimoxazine, co-tetraxazine, and/or

nitroimidazoles and nitrofurans, for example, metronidazole, tinidazole, ornidazole, nitrofurantoin, nitrofurazone, and/or

antimycotics, for example: azole derivatives (clotrimazole, oxiconazole, miconazole, ketoconazole, itraconazole, fluconazole); polyene antibiotics (amphotericin B, natamycin, nystatin, flucytosine, and/or

virustatics, for example: podophyllotoxin, vidarabine, tromantadine, zidovudine, proteinase inhibitors, alone or also in combination with:

extracts or ingredients of plants, for example: camomile, hamamelis, echinacea and calendula extract, essential oils (eucalyptus oil, camomile oil, pine needle oil, spruce needle oil, peppermint oil, thyme oil, rosemary oil), bisabol oil, cineole, myrtol, thymol, menthol, camphor and/or

wound treatment agents and anti-oxidants, for example: dexpanthenol, iodine povidone, tannin, bismuth salts, allantoin, zinc compounds, vitamins and trace elements, cod liver oil extract, tocopherols, glutathione, ascorbic acid, and/or

antiseptics: acridine derivatives, benzoates, rivanol, chlorhexetidine, quaternary ammonium compounds, cetrimides, biphenylol, chlorofene, octenidine, and/or

mucolytics, for example: acetylcysteine, carbocysteine, ambroxol, bromhexine, tyloxapol, recombined surfactant proteins, DNase and/or

substances to reduce swelling of the mucous membrane, for example: phenylephrine, naphazoline, tramazoline, tetrazoline, oxymetazoline, fenoxazoline, xylometazoline, epinephrine, isoprenaline, hexoprenaline, ephedrine, anti-allergic agents (DSCG), heparin, heparinoids, and/or

local anaesthetics, for example: tetracaine, procaine, lidocaine.

26. (Currently amended) Therapeutic aerosol device according to claim 25, characterised in that wherein application by means of a therapeutic aerosol device in accordance

with ~~any one of claims 1 to 23~~ claim 1 takes place in such a way that aerosol droplets with a diameter of less than 10 μm and preferably approximately 2 to 5 μm are generated.

27. (Currently amended) Therapeutic aerosol device according to ~~either claim 25 and 26, characterised in that~~ claim 25, wherein at least one of the substances is used as a liposome, suspension or emulsion in the micrometer range preferably in the nanometer range with a geometric diameter of less than approximately 1 μm .

28. (Currently amended) Therapeutic aerosol device according to ~~any one of claims 1 - 27,~~ claim 1, integrated into a handheld device.